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## OFFICIAL DISPATCH

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Air Pouch No. [ ]

Dispatch No. [ ]

To. Chief of Communications

From. Officer in Charge, [ ] Construction

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Subject. Progress Report, [ ] Project

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Status Of [ ] Project as of 20 Dec., 1950

1. WELL SITE.

A British manufactured pump powered by a 5.85 H P Diesel Engine has been installed. The pump house as originally planned was approximately 7 x 7 feet, inside dimensions. To accommodate a pump other than a vertical electrically driven jet type pump more floor space was needed. This was accomplished by enclosing the space beneath the water tank. A driveway, surfaced with broken stone, has been constructed to the highway. The pump is started manually and a float is being installed to stop the engine when the tank is filled.

Since the well has been pumped regularly the quality of the water has been good, although it is slightly salty. However, the salt content is within the limits set for potable water.

2. OPERATIONS SITE.

All roads are complete, the grading and drainage of the site is 95% complete. Present construction activity is holding up the balance of the grading. All bunkers have been completed.

The main building is now complete with the exception of the basement. The installation of the boiler, water system and the water cooling system is being made at the present time. It is estimated that this work will be completed by 10 January 1951.

The evaporative cooler for the air conditioning system supplied by the sub-contractor is larger than the architect had planned. Therefore the concrete cantilever provided as its base is being replaced by a concrete slab supported above the 10,000 gal. water tank by two columns and the building wall. Because of the possibility of leaks in the water tank caused by vibration of the cooling unit it was decided to isolate the unit from the tank even though the top of the tank provided an ideal mounting.

The asphalt-cotton membrane and 3 inch reinforced concrete lining of the basement stopped all leakage. However a sump and float controlled sump-pump has been provided.

All equipment on hand has been installed in the operations and Machine Rooms.

The microwave equipment is in use full time but adjustments are needed, incomplete and/or vague instructions and schematic drawings as well as the lack of microwave test equipment make this work difficult. As the installation and adjustment of other equipment is completed the final checking of the microwave system will be completed.

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A 10 x 16 foot emergency Transmitter Room has been built in the Northwest corner of the Warehouse. Two 16-F Collins Transmitters with associated F.S. Keyers and Master Oscillator have been installed in a permanent manner. Long-wire Antennas have been provided for each unit. 110-220 3-phase, 4 wire power, isolated from the Warehouse Circuits, supplies lighting, ventilation and primary power for the equipment. Underground cables provide remote control, keying and telephone service for the equipment from the Operations Room.

The Relaymatic Switchboard has been installed and is providing all services except conference call and dial to dial trunk facilities. Upon receipt of the Dial Telephone Units for the Microwave equipment dial to dial trunk service over the microwave between stations can be initiated.

The telephone switchboards were received with only slight shipping damage. The "Installation Notes" provided were notes for the use of experienced switchboard installation personnel rather than detailed instructions. The result was that some difficulty in installation was experienced until our personnel were able to learn the detailed step by step operation of this board.

Eight operating positions are in use at the present time. Both the 51-J and the 600-X receivers are operating in a very satisfactory manner. A small number of both types of receivers were found to be defective when unpacked. Mechanical troubles such as missing machine screws and loose shaft couplings accounted for roughly half of the troubles. Shorted R.F. and I.F. by-pass condensers were responsible for a large portion of the electrical difficulties.

Construction of the new wing is proceeding in a very satisfactory manner. The interior plastering is complete except for small strips along mop boards and around the window openings. These areas will be completed when the floor is completely laid and the windows are installed, respectively.

All conduit, boxes, wire and convenience outlets are in place. Upon receipt of the circuit breaker panels the circuits can be connected and the 4-wire supply brought in.

The sub-floor and trenches are complete. Approximately 65% of the floor tiles have been laid.

Approximately/

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Approximately 50% of the Acoustitile has been applied to the ceiling. This material cannot be applied to the walls till the windows have been set in place. Shipping information indicates that they will arrive   on 27 December.

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The roofing was received today and it will be laid by 23 Dec. The roof was completed and ready for covering on 4 Nov. To prevent rain from penetrating the pumice concrete insulation a thin seal coat of asphalt was applied *WHEN THE ROOF WAS 2 MET.*

The fixtures in the latrine are being installed. All sewer lines and manholes have been installed. The plumbers are now connecting the water supply lines and the heating and cooling lines have been brought into the wing.

The generator house is complete. The Briggs Lub-Oil filters, the fuel purifier and a 500 gallon tank for purified fuel have been installed.

### 3. TRANSMITTER SITE.

All construction activity at this site will be completed by 31 Dec. The last of the transmission lines are being brought up to the building.

All 231-D and 16-F transmitters are either ready for operation or now in service. Those not being used will be tuned up as soon as good crystals are obtained. The engineering personnel are checking each crystal now on hand. A report will be prepared and sent back along with those crystals which do not operate properly.

All equipment now on hand has been installed in both the control and transmitter rooms. The telephone switchboard will be in operation by 31 December.

The site has been graded and ditched. After talking to a representative of the local Agricultural Department about the possibility of establishing a crop of grass on the bunkers it was decided that till we had sufficient water at the site for frequent sprinkling the possibilities were poor. Therefore a 2 inch layer of "Havara", a decomposed rock containing a high percentage of lime, was applied to the surface of the bunkers. This material will prevent erosion of the bunkers with a minimum amount of maintenance.

Rains/

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Rains of as little as  $\frac{1}{4}$  inch in several hours have caused washing of the unprotected bunkers.

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